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Sequence Listing was accepted.

See attached Validation Report.

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217-9197 (toll free).

Reviewer: Keisha Douglas

Timestamp: [year=2011; month=2; day=22; hr=12; min=2; sec=55; ms=400; ]

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Application No: 10588570

Version No: 2.0

Input Set:

Output Set:

Started: 2011-02-09 19:12:59.575

Finished: 2011-02-09 19:13:02.876

Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 301 ms

Total Warnings: 38

Total Errors: 8

No. of SeqIDs Defined: 38

Actual SeqID Count: 38

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
E 342	'n' position not defined found at POS: 17 SEQID(5)
E 342	'n' position not defined found at POS: 18 SEQID(5)
E 342	'n' position not defined found at POS: 19 SEQID(5)
E 342	'n' position not defined found at POS: 20 SEQID(5)
E 342	'n' position not defined found at POS: 21 SEQID(5)
E 342	'n' position not defined found at POS: 22 SEQID(5)
E 342	'n' position not defined found at POS: 23 SEQID(5)
E 342	'n' position not defined found at POS: 24 SEQID(5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
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W 213	Artificial or Unknown found in <213> in SEQ ID (8)
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W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)

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**Total Warnings:** 38  
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Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
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W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20) This error has occurred more than 20 times, will not be displayed

# SEQUENCE LISTING

<110> Marx, Andreas  
 Summerer, Daniel  
 Rudinger, Nicolaus Zackes

<120> MUTATED DNA POLYMERASE WITH INCREASED MISPAIRING  
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<130> 630196.401USPC

<140> 10588570

<141> 2011-02-09

<150> PCT/EP2005/050479

<151> 2005-02-04

<150> DE 102004005885.7

<151> 2004-02-05

<160> 38

<170> PatentIn Ver. 2.1

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<211> 2787

<212> DNA

<213> Artificial Sequence

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<223> E. Coli wild type Klenow fragment of DNA polymerase I

<400> 1

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<211> 928

<212> PRT

<213> Artificial Sequence

<220>

<223> E.coli Klenow fragment of DNA polymerase I

<400> 2

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```

```

Gly Glu Pro Thr Gly Ala Met Tyr Gly Val Leu Asn Met Leu Arg Ser
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```

```

Leu Ile Met Gln Tyr Lys Pro Thr His Ala Ala Val Val Phe Asp Ala
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```

```

Lys Gly Lys Thr Phe Arg Asp Glu Leu Phe Glu His Tyr Lys Ser His
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```

```

Arg Pro Pro Met Pro Asp Asp Leu Arg Ala Gln Ile Glu Pro Leu His
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Ala Met Val Lys Ala Met Gly Leu Pro Leu Leu Ala Val Ser Gly Val
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Glu Ala Asp Asp Val Ile Gly Thr Leu Ala Arg Glu Ala Glu Lys Ala

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145		150		155	160
Gly Pro Glu Glu Val Val Asn Lys Tyr Gly Val Pro Pro Glu Leu Ile					
	165		170		175
Ile Asp Phe Leu Ala Leu Met Gly Asp Ser Ser Asp Asn Ile Pro Gly					
	180		185		190
Val Pro Gly Val Gly Glu Lys Thr Ala Gln Ala Leu Leu Gln Gly Leu					
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Gly Gly Leu Asp Thr Leu Tyr Ala Glu Pro Glu Lys Ile Ala Gly Leu					
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Ser Phe Arg Gly Ala Lys Thr Met Ala Ala Lys Leu Glu Gln Asn Lys					
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Glu Leu Glu Leu Thr Cys Glu Gln Leu Glu Val Gln Gln Pro Ala Ala					
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Glu Glu Leu Leu Gly Leu Phe Lys Lys Tyr Glu Phe Lys Arg Trp Thr					
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Ala Asp Val Glu Ala Gly Lys Trp Leu Gln Ala Lys Gly Ala Lys Pro					
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Ala Ala Lys Pro Gln Glu Thr Ser Val Ala Asp Glu Ala Pro Glu Val					
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Thr Ala Thr Val Ile Ser Tyr Asp Asn Tyr Val Thr Ile Leu Asp Glu					
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Glu Thr Leu Lys Ala Trp Ile Ala Lys Leu Glu Lys Ala Pro Val Phe					
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Ala Phe Asp Thr Glu Thr Asp Ser Leu Asp Asn Ile Ser Ala Asn Leu					
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Val Gly Leu Ser Phe Ala Ile Glu Pro Gly Val Ala Ala Tyr Ile Pro					
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Val Ala His Asp Tyr Leu Asp Ala Pro Asp Gln Ile Ser Arg Glu Arg					
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Ala Leu Glu Leu Leu Lys Pro Leu Leu Glu Asp Glu Lys Ala Leu Lys					
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Val Gly Gln Asn Leu Lys Tyr Asp Arg Gly Ile Leu Ala Asn Tyr Gly					

420		425		430
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Leu Asn Ser Val Ala Gly Arg His Asp Met Asp Ser Leu Ala Glu Arg				
450		455		460
Trp Leu Lys His Lys Thr Ile Thr Phe Glu Glu Ile Ala Gly Lys Gly				
465		470		480
Lys Asn Gln Leu Thr Phe Asn Gln Ile Ala Leu Glu Glu Ala Gly Arg				
	485		490	495
Tyr Ala Ala Glu Asp Ala Asp Val Thr Leu Gln Leu His Leu Lys Met				
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Trp Pro Asp Leu Gln Lys His Lys Gly Pro Leu Asn Val Phe Glu Asn				
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Ile Glu Met Pro Leu Val Pro Val Leu Ser Arg Ile Glu Arg Asn Gly				
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Val Lys Ile Asp Pro Lys Val Leu His Asn His Ser Glu Glu Leu Thr				
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805	810	815
Thr Leu Asp Gly Arg Arg Leu Tyr Leu Pro Asp Ile Lys Ser Ser Asn		
820	825	830
Gly Ala Arg Arg Ala Ala Ala Glu Arg Ala Ala Ile Asn Ala Pro Met		
835	840	845
Gln Gly Thr Ala Ala Asp Ile Ile Lys Arg Ala Met Ile Ala Val Asp		
850	855	860
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His Asp Glu Leu Val Phe Glu Val His Lys Asp Asp Val Asp Ala Val		
885	890	895
Ala Lys Gln Ile His Gln Leu Met Glu Asn Cys Thr Arg Leu Asp Val		
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<213> Artificial Sequence

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<223> Wildtype Taq polymerase

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<211> 832

<212> PRT

<213> Artificial Sequence

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35 40 45

Lys Ser Leu Leu Lys Ala Leu Lys Glu Asp Gly Asp Ala Val Ile Val

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